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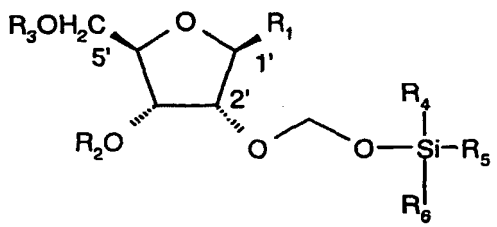

(I)

(57) Abstract: The invention provides ribonucleoside derivatives with novel protecting groups and methods for the preparation of such ribonucleoside derivatives. The general formula (I) of the ribonucleoside derivatives is: wherein R_1 is a base of the purine- or pyrimidine-family or a derivative of such a base or any other residue with serves as a nucleobase surrogate, R_2 is a proton or a substituted derivative of phosphonic acid, R_3 is a proton or a protection-group for the oxygen atom in 5'-position, R_4, R_5 and R_6 are independently alkyl or aryl or a combination of alkyl and aryl or heteroatom, R_4, R_5 or R_6 may also be cyclically connected to each other; and wherein at least one of the R_4, R_5 or R_6 substituents comprises a tertiary C-atom or a heteroatom vicinal to the Si-atom.